

### ABSTRACT

The invention provides a ferritic heat-resistant steel having excellent high-temperature oxidation resistance, especially excellent steam oxidation-resistant characteristics. In high-Cr ferritic heat-resistant steel, ultra-fine oxide particles having a size of not larger than 1  $\mu\text{m}$  are formed just below the oxide films and formed on the steel base, whereby the adhesiveness between the films and the base is enhanced. The ferritic heat-resistant steel contains Cr in an amount of from 8.0 to 13.0 % by weight, and at least one of Rh and Ir in a total amount of from 0.3 to 5.0 % by weight.